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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,611	04/28/2006	L. Curtis Hannah	UF-382XC1	5368

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EXAMINER	
FOX, DAVID T	

ART UNIT	PAPER NUMBER
1638	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/577,611	HANNAH ET AL.	
	Examiner	Art Unit	
	David T. Fox	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17 and 31-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17 and 31-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *24 July 2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Objection

Claim 31 is objected to for its recitation in line 3 of "SilSh2" which disagrees with the recitation of "Sil.Sh2" found on page 8 of the specification, line 22. It is noted that the Deposit Statement on pages 8-9 of the specification is in accordance with 37 CFR 1.801-1.809, regarding the deposit conditions.

Restriction/Election

Applicant's election without traverse of Group I in the reply filed on 18 July 2006 is acknowledged.

Claims 1-17 and 31-34, all corresponding to Group I, are examined in the following Office action.

Effective Filing Date

The effective filing date of the claimed invention is 31 October 2003, the filing date of the provisional application.

Specification Objection

The incorporation of essential material in the specification by reference to an unpublished U.S. application, foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously

incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).

The attempt to incorporate subject matter into this application by reference to an unpublished provisional application and a truncated hyperlink is improper because essential material may only be incorporated by reference to US patents or published US patent applications, per 37 CFR 1.57(c).

The specification on page 8, lines 15-18 relies upon a non-published provisional application and a hyperlink for essential material, namely the source of the components of the instantly claimed dominant loss-of-function mutant allele, corn seed containing it, and methods of constructing same.

Indefiniteness

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 31-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Dependent claims are included in all rejections.

Claim 31 is indefinite in its recitation of "SilSh2 [sic]", because it is unclear which genetic components this seed comprises. The correspondence between the "Sil.Sh2" corn seed recited on page 8 of the specification, line 22, and the various components of a dominant loss-of-function allele recited on page 8, lines 11-18, is unclear. Note that the amendment of claim 31 to address the typographical error above would not address the instant indefiniteness rejection.

Claims 32-34 are indefinite in their recitation of "said corn seed" as it is unclear whether this refers to seed of the first or second corn line, or both.

Written Description

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-17 and 31-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1-17 and 32-34 are drawn to corn seeds comprising a multitude of dominant loss-of-function sh2 alleles, from a variety of plant sources, and comprising a variety of nucleotide sequences, wherein said corn seeds have an increased sucrose content. The Sh2 gene encodes the large subunit of the ADP glucose pyrophosphorylase (AGP) enzyme involved in starch biosynthesis. Furthermore, the dominant loss-of-function allele may be the result of a multitude of divergent nucleotide sequences, such as antisense RNA-encoding sequences corresponding to an sh2 allele or portions thereof, ribozyme-encoding sequences corresponding to an sh2 allele or portions thereof, or sequences encoding regulatory proteins rather than the Sh2 protein.

Claim 31 is drawn to corn seed comprising a multitude of dominant loss-of-function alleles which are "substantially similar" to the allele found in "Sil.Sh2", wherein the actual composition of "Sil.Sh2" is itself unclear, as discussed above.

In contrast, the specification only appears to provide guidance for corn seeds containing a dominant loss-of-function sh2 allele which may comprise an Sh2 promoter from any plant source and of any sequence, an Sh1 first intron from any plant source and of any sequence, a maize endosperm Sh2 coding sequence of any length and sequence, and the NOS terminator, wherein the Sh2-encoding sequence encodes a protein comprising the HS33 and Rev6 mutations.

No guidance is provided for the isolation or characterization of the multitude of undefined dominant loss-of-function alleles discussed above. Moreover, no guidance is provided for any conserved sequence domain which is responsible for the dominant loss-of-function of the sh2 gene, and which is responsible for the claimed increase in sucrose content.

The Federal Circuit has recently clarified the application of the written description requirement. The court stated that a written description of an invention "requires a precise definition, such as by structure, formula, [or] chemical name, of the claimed subject matter sufficient to distinguish it from other materials." University of California v. Eli Lilly and Co., 119 F.3d 1559, 1568; 43 USPQ2d 1398, 1406 (Fed. Cir. 1997). The court also concluded that "naming a type of material generally known to exist, in the absence of knowledge as to what that material consists of, is not a description of that material." Id. Further, the court held that to adequately describe a claimed genus, Patent Owner must describe a representative number of the species of the claimed

genus, and that one of skill in the art should be able to "visualize or recognize the identity of the members of the genus." Id.

Finally, the court held:

A description of a genus of cDNAs may be achieved by means of a recitation of a representative number of cDNAs, defined by nucleotide sequence, falling within the scope of the genus or a recitation of structural features common to members of the genus, which features constitute a substantial portion of the genus. Id.

See also MPEP, Eighth Edition, Section 2163, page 174 of Chapter 2100 of the September 2007 revision, column 1, bottom paragraph, where it is taught that

[T]he claimed invention as a whole may not be adequately described where an invention is described solely in terms of a method of its making coupled with its function and there is no described or art-recognized correlation or relationship between the structure of the invention and its function. A biomolecule sequence described only by a functional characteristic, without any known or disclosed correlation between that function and the structure of the sequence, normally is not a sufficient identifying characteristic for written description purposes, even when accompanied by a method of obtaining the claimed sequence.

See also Amgen Inc. v. Chugai Pharmaceutical Co. Ltd., 18 USPQ 2d 1016 at 1021, (Fed. Cir. 1991) where it is taught that a gene is not reduced to practice until the inventor can define it by "its physical or chemical properties" (e.g. a DNA sequence).

Given the claim breadth and lack of guidance as discussed above, the specification fails to provide an adequate written description of the genus of sequences as broadly claimed. Given the lack of written description of the claimed genus of sequences, any method of using them, such as transforming plant cells and plants therewith, and the resultant products including the claimed transformed plant cells and plants containing the genus of sequences, would also be inadequately described. Accordingly, one skilled in the art would not have recognized Applicant to have been in possession of the claimed invention at the time of filing. See the Written Description

Requirement Guidelines published in Federal Register/ Vol. 66, No. 4/ Friday January 5, 2001/ Notices: pp. 1099-1111.

Enablement

Claims 1-17 and 31-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1-17 and 32-34 are drawn to corn seeds comprising a multitude of dominant loss-of-function sh2 alleles, from a variety of plant sources, and comprising a variety of nucleotide sequences, wherein corn seeds containing said alleles have increased sucrose content. The Sh2 gene encodes the large subunit of the ADP glucose pyrophosphorylase (AGP) enzyme involved in starch biosynthesis. Furthermore, the dominant loss-of-function allele may be the result of a multitude of divergent nucleotide sequences, such as antisense RNA-encoding sequences corresponding to an sh2 allele or portions thereof, ribozyme-encoding sequences corresponding to an sh2 allele or portions thereof, or sequences encoding regulatory proteins rather than the Sh2 protein.

Claim 31 is drawn to corn seeds comprising a multitude of dominant loss-of-function alleles which are "substantially similar" to the allele found in “Sil.Sh2”, wherein the actual composition of “Sil.Sh2” is itself unclear, as discussed above.

In contrast, the specification only appears to provide guidance for corn seeds containing a dominant loss-of-function sh2 allele which may comprise an Sh2 promoter from any plant source and of any sequence, an Sh1 first intron from any plant source and of any sequence, a maize endosperm Sh2 coding sequence of any length and sequence, and the NOS terminator, wherein the Sh2-encoding sequence encodes a protein comprising the HS33 and Rev6 mutations.

No guidance is provided for the identification or isolation of the multitude of undefined dominant loss-of-function alleles discussed above, or for the evaluation of said alleles for their ability to inhibit Sh2 gene expression and also increase sucrose content, as instantly claimed.

The alteration of carbohydrate content via plant transformation is unpredictable. Sweetlove et al teach that plant transformation with an ADP glucose pyrophosphorylase gene failed to increase starch content, despite a four-fold increase in enzyme activity, and despite the knowledge in the art that AGP highly influences starch production (see, e.g., page 493, Abstract and middle paragraph of column 1; page 495; page 497, column 2, second paragraph of "Discussion" section).

The alteration of corn starch content via transformation with an sh2 allele from another plant source is unpredictable. Salehuzzaman et al teach that a heterologous cassava starch synthase gene failed to fully complement the mutation of this gene in potato (see, e.g., page 1311, Abstract).

Furthermore, it is unclear whether the claimed "HS33" mutation, corresponding to the replacement of Histidine with Tyrosine at residue 333 of the maize large subunit of

ADP glucose pyrophosphorylase, would be found at the same residue in ADP glucose pyrophosphorylase proteins in other plant species.

In addition, the alteration of carbohydrate synthesis gene activity, such as Sh2 gene activity, and the concomitant alteration of carbohydrate content by other means, such as antisense RNA or ribozymes is unpredictable. Kull et al teach that no alteration of starch content was observed following potato transformation with antisense RNA-encoding sequences corresponding to a barley granule-bound starch synthase (GBSS) gene. Kull et al also teach that no alteration of starch content was observed following potato transformation with ribozyme-encoding sequences corresponding to the potato GBSS gene (see, e.g., page 69, Abstract).

Moreover, given the lack of complete or exact disclosure of the sources or sequences of the components of Applicant's exemplified dominant loss-of-function sh2 allele, as discussed above, the instant specification fails to even enable one skilled in the art to reproduce the exemplified dominant loss-of-function sh2 allele, or its ability to alter sucrose production in maize plants transformed therewith.

Given the claim breadth, unpredictability, and lack of guidance as discussed above, undue experimentation would have been required by one skilled in the art to identify, isolate and evaluate a multitude of putative dominant loss-of-function sh2 alleles, comprising a multitude of non-exemplified sequences from a multitude of non-exemplified sources; for their ability to increase sucrose content in maize seeds transformed therewith.

Obviousness

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-11, 13 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/09237 (SANDOZ) in view of Robertson et al (US 5,004,864), further in view of Marshall et al (US 6,288,311).

The claims are broadly drawn to mixtures of corn seeds comprising a first corn line comprising a dominant loss-of-function sh2 allele and a second genetically male sterile corn line comprising a functional or semi-functional sh2 allele, wherein the seed mixture may comprise 0.1-50% of the first corn line. Claims 9-10 specify that the second corn line additionally comprises at least one gene conferring desirable eating attributes such as thin pericarp. Claim 11 specifies that the first corn line additionally

comprises a homozygous recessive sugary (su1) allele. Claim 31 recites that the dominant loss-of-function allele of the first corn line be "substantially similar" to that of deposited corn line Sil.Sh2. Claim 13 is drawn to a method of producing corn plants bearing seed with increased sucrose content, comprising planting the corn mixtures and allowing for cross-pollination.

SANDOZ teaches that sweet corn for human consumption is due to the presence of recessive alleles at the sh2 locus, encoding the large subunit of the maize AGP enzyme involved in starch synthesis, and the presence of recessive alleles at the sugary (su1) locus. SANDOZ also teach that the double recessive sh2 kernels may be shrunken and have poor germination, wherein the provision of an additional functional Sh2 allele would overcome this problem. SANDOZ also teach corn plant transformation with a nucleic acid construct encoding antisense RNA to the sh2 allele, wherein plants containing said nucleic acid construct produced corn seeds which exhibited reduced levels of AGP enzyme, even when the wild-type Sh2 allele was also present. One of ordinary skill in the art would have recognized that the antisense RNA- encoding construct comprises a dominant loss-of-function allele, since it was able to suppress AGP activity even when the wild-type Sh2 allele was present.

See, e.g., SANDOZ, Figure 7; page 1 of the specification, second paragraph through page 2, penultimate paragraph; page 3, first full paragraph; paragraph bridging pages 3 and 4; page 4, third full paragraph; paragraph bridging pages 4 and 5; pages 5 and 7; page 8, bottom paragraph; page 10, second full paragraph; page 13; page 15,

bottom paragraph; pages 16 and 17; page 19, middle paragraph; pages 21-23; page 28, bottom paragraph through page 29).

SANDOZ does not teach mixtures of corn seeds comprising the dominant loss-of-function sh2 alleles and a second genetically male sterile allele possessing other desirable attributes.

Robertson et al teach the desirability of dominant mutants of carbohydrate synthesis genes for ease of breeding, and also teach the use of male sterility to control pollinations for the introgression of these mutants into agronomically acceptable varieties (see, e.g., column 1, line 62 through column 2, line 9; column 2, lines 23-29 and 61-67; column 5, lines 26-29 and 49-55; column 9, lines 24-32).

Marshall et al teach the use of seed blends of a first corn line comprising a grain quality gene mixed with a second "elite" (agronomically desirable) and genetically male-sterile corn line, wherein the first corn line is no more than 25% of the mixture (see, e.g., column 1, line 51 through column 2, line 8).

It would have been obvious to one of ordinary skill in the art to utilize the corn line comprising a dominant loss-of-function sh2 allele taught by SANDOZ, and to incorporate that corn line into a seed mixture comprising an agronomically desirable male sterile line, wherein the planting of the mixture results in the cross-pollination of the male-sterile line and the production of super-sweet maize plants comprising a dominant loss-of-function sh2 allele and a functional Sh2 allele; given the suggestion of Robertson et al and Marshall et al. It would have been further obvious to incorporate a homozygous recessive su1 genotype, given the teaching of SANDOZ that the presence

of multiple starch synthesis mutants results in super-sweet corn. The dominant loss-of-function sh2 allele taught by SANDOZ appears to be "substantially similar" to that of the instantly deposited line, since both comprise sh2 gene sequences. The use of an agronomically desirable line which additionally comprises known eating attribute genes would have been obvious to the artisan of ordinary skill. Choice of particular percentage of first and second lines in the mixture would have been the optimization of process parameters.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/09237 (SANDOZ) in view of Robertson et al (US 5,004,864), further in view of Marshall et al (US 6,288,311) as applied to claims 1-11, 13 and 31 above, and further in view of Hannah (US 6,184,438, Applicant cited).

Claim 12 is drawn to a seed mixture of a first corn line comprising a dominant loss-of-function sh2 allele and a second genetically male sterile corn line, wherein at least one of the corn lines comprises the sh2-i allele in homozygous condition.

SANDOZ in view of Robertson et al and Marshall et al teach a seed mixture of a first corn line comprising a dominant loss-of-function sh2 allele and a second genetically male sterile corn line as discussed above, but do not teach the sh2-ii allele.

SANDOZ also teach that the complete absence of Sh2 gene activity results in poor germination, as discussed above.

Hannah teach the sh2-i allele which is a leaky mutant, wherein the occasional function of the mutant allele to express the Sh2 protein results in improved germination

of sweet corn, and wherein the sh2-i allele may be introgressed into other corn genotypes (see, e.g., column 2, line 61 through column 3; column 8, lines 30-50).

It would have been obvious to one of ordinary skill in the art to utilize the seed mixture of a first corn line comprising a dominant loss-of-function sh2 allele and a second genetically male sterile corn line taught by SANDOZ in view of Robertson et al and Marshall et al; and to modify that mixture by incorporating the sh2-i allele taught by Hannah, given the suggestion to do so by SANDOZ and Hannah.

Claims 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/09237 (SANDOZ) in view of Robertson et al (US 5,004,864), further in view of Marshall et al (US 6,288,311) as applied to claims 1-11 and 13 above, and further in view of Hannah et al (US 5,589,618, Applicant submitted) and Hannah et al (US 6,069,300, Applicant submitted).

Claims 32-34 are drawn to a seed mixture of a first corn line comprising a dominant loss-of-function sh2 allele and a second genetically male sterile corn line, wherein an sh2 allele encoding the HS33 mutation and the Rev6 mutation is also present.

For the purpose of this rejection, claim 31 is being interpreted as being drawn to a corn seed mixture which also comprises the above mutations.

SANDOZ et al in view of Robertson et al and Marshall et al teach a seed mixture of a first corn line comprising a dominant loss-of-function sh2 allele and a second genetically male sterile corn line, as discussed above, but do not teach the HS33 or Rev6 mutations.

Hannah et al (US 5,589, 618) teach the advantages of the Rev6 mutation to confer increased corn seed weight without an increase in starch content, wherein the Rev6 mutation may be introduced into other desirable corn genotypes by traditional breeding or recombinant means (see, e.g., column 2, lines 16-47; column 3, lines 27-41; column 4, lines 9-11 and 34-67; column 5, lines 1-5).

Hannah et al (US 6,069,300) teach the advantages of the corn HS33 mutation for conferring increased heat stability to the AGP enzyme, wherein corn plants containing this mutation could produce completely filled seeds even under heat stress conditions, and wherein the mutation may be combined with other desirable mutations including the Rev6 mutation (see, e.g., column 1, lines 23-28; column 2; column 5, lines 36-63; column 6, lines 1-13; column 7, lines 1-5 and 26-33; column 8, lines 45-52).

It would have been obvious to one of ordinary skill in the art to utilize the seed mixture of a first corn line comprising a dominant loss-of-function sh2 allele and a second genetically male sterile corn line taught by SANDOZ in view of Robertson et al and Marshall et al; and to modify that mixture by incorporating the Rev6 and HS33 mutations taught by Hannah et al '618 and Hannah et al '300; given the suggestion to incorporate multiple advantageous sh2 mutations as taught by each Hannah et al reference.

Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/09237 (SANDOZ) in view of Robertson et al (US 5,004,864), further in view of Wych.

The claims are drawn to a method for producing super-sweet corn, comprising planting alternating rows of a first corn line comprising a dominant loss-of-function sh2 allele and a second agronomically desirable and male sterile corn line with a functional or semi-functional Sh2 allele, wherein the male sterility may be caused by detasseling or chemicals.

SANDOZ teach a corn line comprising a dominant loss-of-function sh2 allele and additionally comprising a wild-type Sh2 allele, wherein the allele may be introduced into any corn genotype, as discussed above, but do not teach the use of alternating rows of this corn line with a male sterile corn line.

Robertson et al teach the advantages of a dominant mutation affecting corn grain quality as discussed above.

Wych teach the use of alternating rows of a first corn line comprising a desirable trait gene and a second agronomically desirable corn line, wherein the second corn line may be made male-sterile by mechanical or chemical means, for the production of agronomically desirable corn lines which possess additional desirable traits (see, e.g., page 576, top paragraph; page 578, bottom paragraph through page 583).

It would have been obvious to one of ordinary skill in the art to utilize the dominant loss-of-function sh2 allele and methods of its incorporation into other corn genotypes as taught by SANDOZ, and to modify that method by utilizing alternating rows of a male sterile and agronomically desirable corn line for the incorporation of the dominant loss-of-function sh2 allele, as suggested by Robertson et al and Wych.

Determination of the actual number of rows of each type of corn line would have been the optimization of process parameters.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David T. Fox whose telephone number is (571) 272-0795. The examiner can normally be reached on Monday through Friday from 10:30AM to 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg, can be reached on 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/David T Fox/

Primary Examiner, Art Unit 1638

November 3, 2008